HEAVY WEIGHT ALUMINUM CONTINUOUS GEARED HINGES

Direct Hardware Heavy Weight Aluminum Continuous Geared Hinges are designed for durability and reliable performance in high-traffic environments. Unlike traditional pin-based hinges, our geared design features a rotating joint that evenly distributes weight across the entire length of the frame—reducing stress and significantly minimizing wear over time.

DHHD157

DHHD210

Item No.	Type	Size	Finish	QTY
DHHD053	Half-Surface	83″	Alum / Duro	1
DHHD053	Half-Surface	95″	Alum / Duro	1
DHHD053	Half-Surface	119″	Alum / Duro	1
DHHD057	Full-Surface	83″	Alum / Duro	1
DHHD057	Full-Surface	95″	Alum / Duro	1
DHHD057	Full-Surface	119″	Alum / Duro	1
DHHD157	Full-Surface	83″	Alum / Duro	1
DHHD157	Full-Surface	95″	Alum / Duro	1
DHHD157	Full-Surface	119″	Alum / Duro	1
DHHD210	Full-Surface	83″	Alum / Duro	1
DHHD210	Full-Surface	95″	Alum / Duro	1
DHHD210	Full-Surface	119″	Alum / Duro	1
DHHD111	Full-Mortise	83″	Alum / Duro	1
DHHD111	Full-Mortise	95″	Alum / Duro	1
DHHD111	Full-Mortise	119″	Alum / Duro	1
DHHD112	Full-Mortise	83″	Alum / Duro	1
DHHD112	Full-Mortise	95″	Alum / Duro	1
DHHD112	Full-Mortise	119″	Alum / Duro	1
DHHD224	Full-Mortise	83″	Alum / Duro	1
DHHD224	Full-Mortise	95″	Alum / Duro	1
DHHD224	Full-Mortise	119″	Alum / Duro	1

DHHD112

DHHD053

CROSS-REFERENCE CHART

DH	ABH	IVES	MCKINNEY	NGP	PEMKO	ROTON	SELECT	STANLEY	ZERO
DHHD053	A530HD	053XY		HD5300		780-053HD	SL53 HD600	679HD	925DB
DHHD057	A571HD					780-057HD	SL60 HD600		
DHHD111	A111HD		MCK-14HD	HD1800	FMSLIHD	780-111HD	SL18 HD600		
DHHD112	A110HD	112HD	MCK12HD	HD1100	FMSLFHD	780-112HD	SL11 HD600	661HD	910DB
DHHD157	A570HD	157XY	MCK58HD	HD5700	FSCPHD	780-157HD	SL57 HD600	664HD	935DB
DHHD210	A210HD	210XY	MCK22HD	HD2100	FSHD	780-210HD	SL21 HD600	665HD	930DB
DHHD224	A240HD	224HD	MCK25HD	HD2400	FMHD	780-224HD	SL24 HD600	662HD	914DB

Full-Mortise Aluminum Continuous-Geared Hinges / Heavy-Duty

DHHD111 and DHHD112 are aluminum continuous geared concealed-leaf hinges.

DHHD111 has a 1/8″ (3.18 mm) door inset; DHHD112 is flush door.

Both models fit standard frames without hinge prep and can be installed with or without reinforcements depending on door weight. Provide a minimum 5/16″ (7.94 mm) clearance between the door's hinge edge and the frame rabbet.

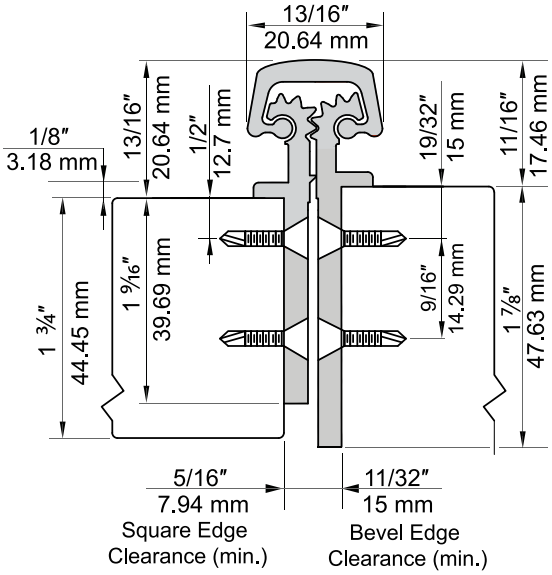


Fig. 1 — DHHD111

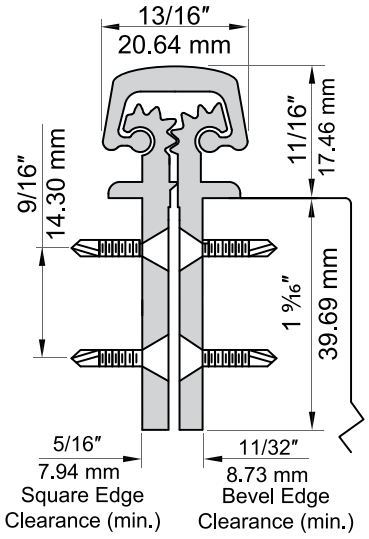


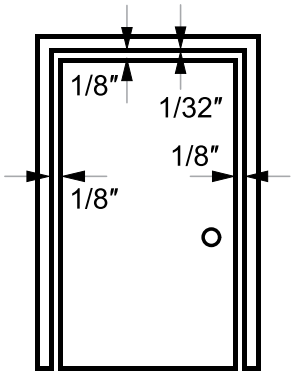
Fig. 2 — DHHD112

Hinge Length

Direct Hardware (DH) hinges are supplied approximately 1″ (25.4 mm) to 1 5/16″ (33.3 mm) shorter than the nominal door height to avoid interference with thresholds or carpet. If field-trimming is required, first confirm the handing and hinge orientation. Mark and trim from the bottom only.

Door Height	Hinge Length	Bearings
7′ - 0″	83″ (2108 mm)	32 PCS
8′ - 0″	95″ (2413 mm)	36 PCS
10′ - 0″	119″ (3022 mm)	46 PCS

Door Clearance Required

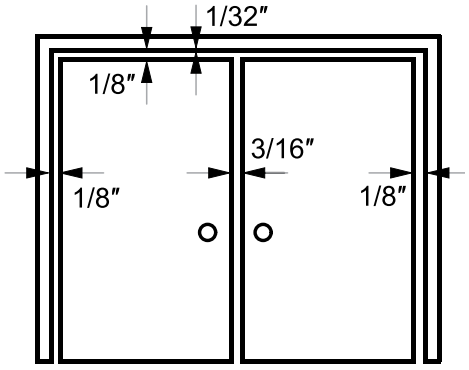


SINGLE DOOR

Hinge thickness:	5/16″ (7.94 mm)
Allowance for frame irregularities:	1/32″ (0.79 mm)
Typical latch-side clearance:	1/8″ (3.18 mm)
Total:	15/32″ (11.90 mm)

DOUBLE DOORS

First hinge thickness	5/16″ (7.94 mm)
First Allowance for frame irregularities:	1/32″ (0.79 mm)
Typical clearance between doors:	3/16″ (4.78 mm)
Second hinge thickness	5/16″ (7.94 mm)
Second allowance for frame irregularities:	1/32″ (0.79 mm)
Total:	7/8″ (22.23 mm)



Cutting the Hinge to Fit

- Keep the hinge closed and remove door-leaf caps if necessary.
- Confirm handing (if applicable).
- Cut one end only. After cutting, mount the hinge so the template hole pattern aligns at the top.
- Use a metal-cutting saw, starting at the gear cap.
- Maintain 5/16″ (7.94 mm) minimum clearance between the hinge edge and the frame.
- To prevent grout from interfering with fasteners, use mortar guards (styrofoam or wood) in frames.
- New site-hung wood doors: if trimming, scribe and cut from the latch edge to maintain hinge-stile thickness for secure fastening.
- Remodeling existing wood or laminate doors: if trimming, scribe and cut from the hinge edge, then plane smooth.

What to Order

Specify: • Model (DHHD111 or DHHD112) • Length • Finish (AL/BK/DU) • Fasteners (metal/wood) • Quantity

DHHD111 AND DHHD112 INSTALLATION INSTRUCTIONS

Frame Preparation (See Fig. 3)

1. With the hinge open, place the frame leaf against the frame rabbet so the alignment rib is flush with the frame face along its full length. Position the top of the hinge 1/16″ below the header (max 1/8″). Tip: use a 1/16″ shim to allow for initial bearing settling.
2. Mark and center-punch all screw-hole locations accurately.
3. Metal frames: 16-gauge: no pilot holes required with the supplied #12 self-drilling screws. Thicker than 16-gauge: drill and tap all holes #12-24 before installing screws.
4. Do not attach the hinge to the frame yet.

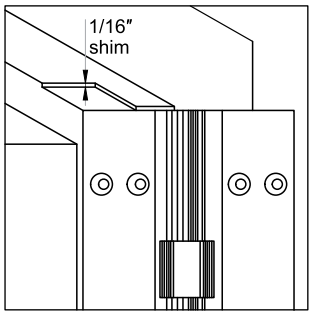


Fig. 3 — Frame Preparation

Door Preparation (See Fig. 4)

1. With the hinge open, place the door leaf at the door edge so the alignment rib is flush with the door face along its full length. Align the top of the hinge with the top edge of the door.
2. Metal doors:
   • 16-gauge hollow metal: no pilot holes required with the supplied #12 self-drilling screws.
   • Thicker than 16-gauge: drill and tap all holes #12-24 before installing screws.
   Wood doors: if using the optional #12 wood screws (included with LL models), pre-drill with a 5/32″ (4 mm) bit.
3. Attach the hinge to the door. Metal doors: use the supplied #12 self-drilling screws (recommended driver speed 1,900–2,500 RPM). Wood doors: use the optional #12 wood screws.

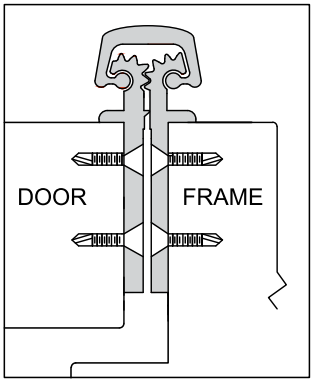


Fig. 4 — Door Preparation

Hanging the Door (See Fig. 5)

1. With the hinge attached to the door, set the door at 90° to the frame and fasten the frame leaf to the rabbet. Metal frames: use the supplied #12 self-drilling screws (driver speed 1,900–2,500 RPM). Wood frames: use the optional #12 wood screws.
2. Perform a gentle trial swing and verify smooth operation and proper clearances.

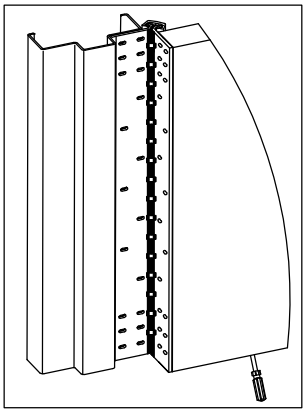


Fig. 5 — Hanging the Door

Adjusting the Door (See Fig. 6)

1. If lateral adjustment is required due to excessive or uneven door/frame clearance, shim as needed:
   a) Minor adjustment: build up cloth duct tape shims to the required thickness under the frame leaf; a typical starting thickness is 1 ½″ (38.10 mm) wide tape applied in stepped layers.
   b) Shift entire door: insert a continuous aluminum shim strip under the frame leaf (available in 1/16″ and 1/8″ thicknesses).
2. Re-tighten all screws and perform a final swing test to confirm smooth operation and correct clearances.

Material	Pilot Holes	Screw Type	Notes
16-ga metal frame/door	Not required	#12 self-drilling (supplied)	Drive 1,900–2,500 RPM
>16-ga metal	Drill & tap #12-24	#12-24 machine screw	Tap all mounting holes
Wood frame/door	Drill 5/32″ (4 mm)	#12 wood screw (optional)	Included with leaf-cover (LL) models

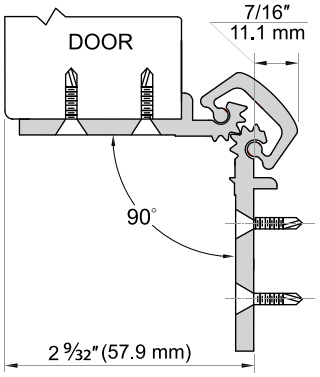
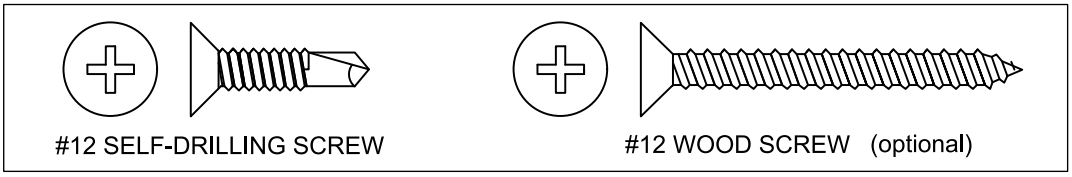


Fig. 6 — Adjustment by Shimming



DHHD111 / DHHD112 Templates

(Refer to Fig.1 through Fig.7)
For these items, the frame leaf and door leaf have the same hole positions.

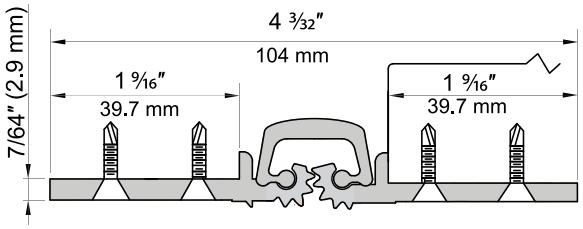
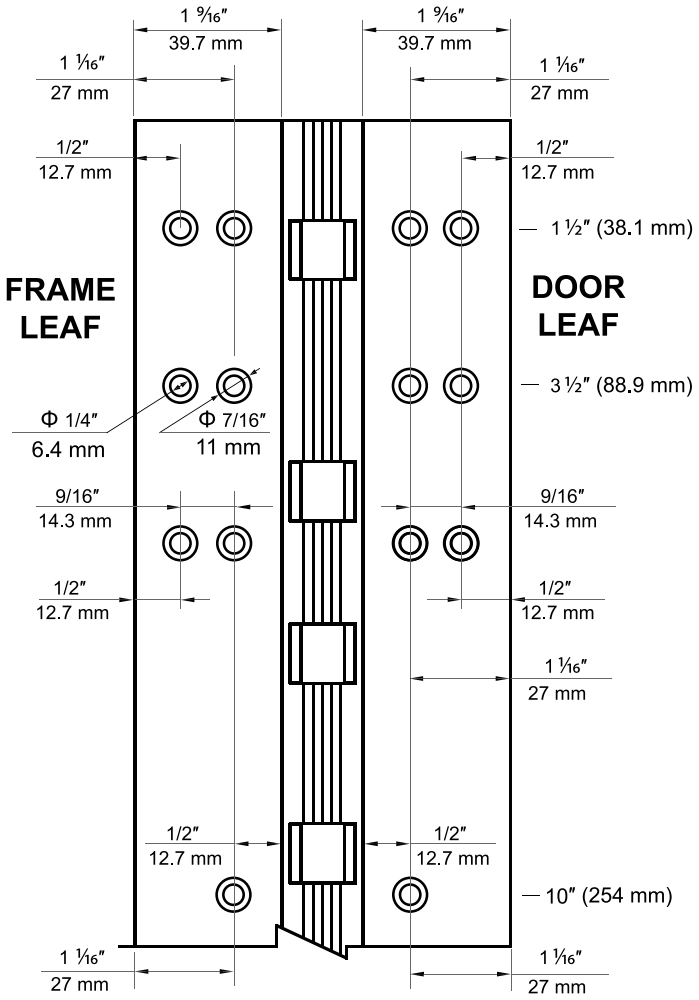
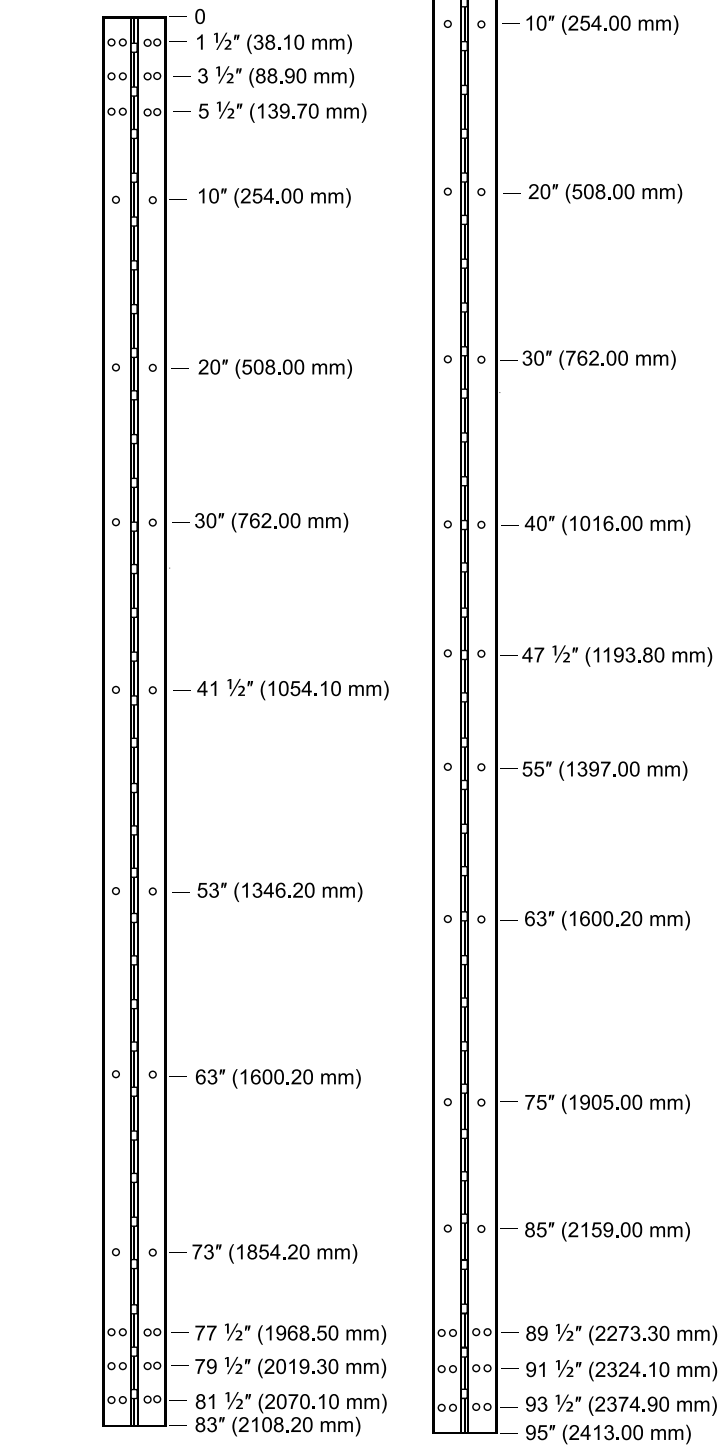


Fig. 7 — Templates & Hole Patterns



95″: 42 fasteners and 36 bearings

83″: 38 fasteners and 32 bearings



Cross References

DH	ABH	IVES	MARKAR	MCKINNEY	NGP	PEMKO	PBB	ROTON	SELECT	STANLEY	ZERO
DHHD111	A111HD			MCK1-14HD	HD1800	FMSLIHD	CG311	780-111HD	SL18 HD600		
DHHD112	A110HD	112HD	FM2000	MCK12HD	HD1100	FMSLFHD	CG31	780-112HD	SL11 HD600	661HD	910DB

Full-Mortise Aluminum Continuous-Geared Hinges / Heavy-Duty

DHHD224 · Full-Mortise Hinge is an aluminum continuous-geared, concealed-leaf hinge engineered for durability and smooth operation. This model provides a 1/16″ (1.57 mm) door inset and is compatible with standard frames—no hinge prep required. It may be installed with or without reinforcements, depending on door weight. Maintain a minimum clearance of 5/16″ (7.94 mm) between the door's hinge edge and the frame rabbet. Hinges are supplied with bearings.

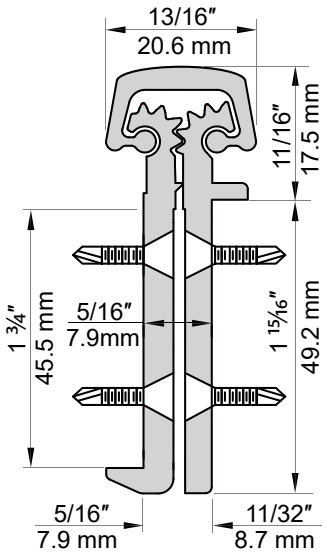


Fig. 1 — DHHD224

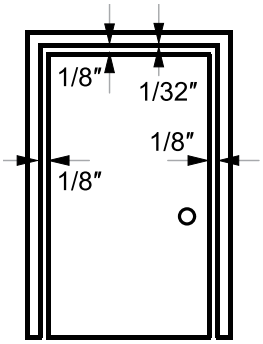
Hinge Length

Direct Hardware (DH) hinges are supplied approximately 1″ (25.4 mm) to 1 5/16″ (33.3 mm) shorter than the nominal door height to avoid interference with thresholds or carpet.

Door Height	Hinge Length	Bearings
7′ - 0″	83″ (2108 mm)	32 PCS
8′ - 0″	95″ (2413 mm)	36 PCS
10′ - 0″	119″ (3022 mm)	46 PCS

If field-trimming is required, first confirm the handing and hinge orientation. Mark and trim from the bottom only.

Door Clearance Required

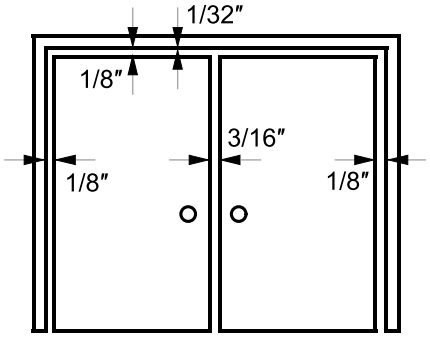


SINGLE DOOR

Hinge thickness:	5/16″ (8 mm)
Allowance for frame irregularities:	1/32″ (0.8 mm)
Typical latch-side clearance:	1/8″ (3.2 mm)
Total:	15/32″ (11.9 mm)

DOUBLE DOORS

First hinge thickness	5/16″ (8 mm)
First Allowance for frame irregularities:	1/32″ (0.8 mm)
Typical clearance between doors:	3/16″ (4.8 mm)
Second hinge thickness	5/16″ (8 mm)
Second allowance for frame irregularities:	1/32″ (0.8 mm)
Total:	7/8″ (22.2 mm)



Cutting the Hinge to Fit

- Keep the hinge closed and remove door-leaf caps if necessary.
- Confirm handing (if applicable).
- Cut one end only. After cutting, mount the hinge so the template hole pattern aligns at the top.
- Use a metal-cutting saw, starting at the gear cap.
- Maintain 5/16″ (7.94 mm) minimum clearance between the hinge edge and the frame.
- To prevent grout from interfering with fasteners, use mortar guards (styrofoam or wood) in frames.
- New site-hung wood doors: if trimming, scribe and cut from the latch edge to maintain hinge-stile thickness for secure fastening.
- Remodeling existing wood or laminate doors: if trimming, scribe and cut from the hinge edge, then plane smooth.

What to Order

Specify: • Model (DHHD224) • Length • Finish (AL/BK/DU) • Fasteners (metal/wood) • Quantity

Quick-Specs

Door Inset	1/16″ (1.57 mm)
Handing	LH/RH (or Non-handed)
Clearances	5/16″ (8 mm) min at hinge edge

Backset	Standard Frame
Frame Prep	Standard Frame
Lengths	83″ / 95″ / 119″ (bearings: 32 / 36 / 46)

Attach Hinge to Frame (See Fig. 2)

1. Ensure the frame face provides a flat, continuous surface at least 1 ⅝″ (41.28 mm) wide to support the hinge. Mark a reference line on the frame face 1 ¾″ (44.45 mm) from the center of the door-to-jamb gap. For a standard 1/8″ hinge-side gap, this line will sit 1 ¾″ from the gap's center.
2. Align the outer edge of the frame-side hinge leaf to the marked line, with the top of the hinge set 1/16″ (1.59 mm) below the header rabbet (maximum 1/8″ / 3.18 mm).
3. Swing the door leaf of the hinge out of the way and mark + center-punch all screw-hole locations. Accurate layout is critical for a proper installation.
4. Fastener preparation
   a) 16-ga metal frames: No pilot holes required when using the supplied #12 self-drilling screws.
   b) >16-ga metal frames: Drill and tap all holes for #12-24 threads before installing screws.
   c) Wood frames: Pre-drill with a 5/32″ (4 mm) bit for optional #12 wood screws.
5. Fasten to frame:
   a) Metal frames: Install the supplied #12 self-drilling screws at a driver speed of 1,900–2,500 RPM.
   b) Wood frames: Use the optional #12 wood screws.

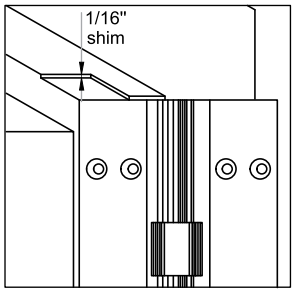


Fig. 2 — Attach Hinge to Frame

Door Preparation (See Fig. 3)

1. Swing the hinge leaf aside. Set the door in the frame with shims/wedges to achieve uniform clearances on all sides.
2. Provide an additional 5/32″ (4 mm) of clearance at the top at the latch edge to allow for initial settling or frame twist after shims are removed and the door's weight transfers to the frame.
3. Secure the door temporarily. Rotate the hinge leaf into position against the door face.
4. Standard sexbolt mounting (recommended): Mark and center-punch the locations for the 3/8″ (9.53 mm) through-holes.
   a) Rotate the hinge leaf away.
   b) Drill completely through the door at each marked location with a 3/8″ bit.
5. Optional mounting without sexbolts: Mark and center-punch for 7/32″ (5.56 mm) pilot holes.
   a) Metal doors: Use the optional #12 self-drilling screws.
   b) Wood doors: Pre-drill with a 5/32″ (4 mm) bit and use optional #12 wood screws.

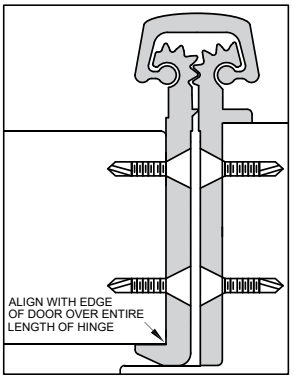


Fig. 3 — Door Preparation

Attach Door to Hinge (See Fig. 4)

1. Fasten the hinge to the door as illustrated. If added security is required on the push face, the sexbolts may be installed in reverse; note that once the molding is installed, reversed sexbolts will not be accessible for maintenance or removal.
2. Remove all shims and wedges. Gently swing the door and verify smooth operation, alignment, and clearances.

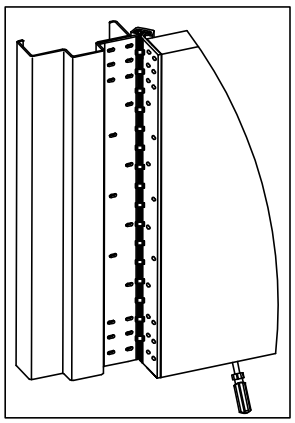


Fig. 4 — Attach Door to Hinge

Install Leaf Cover on Door Leaf (See Fig. 5)

1. Using the supplied 5/64″ (1.98 mm) hex key, locate and loosen the retaining set-screw on the molding edge. Position the long leg of the molding beneath the outer edge of the door leaf, ensuring full-length alignment with the hinge.
2. Starting at the top and working downward, press—or lightly tap—the short leg of the molding into place using a rubber mallet or a hammer with a wood block.
3. Re-tighten the retaining set-screw securely.

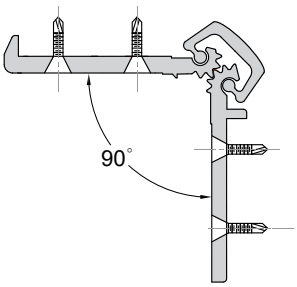
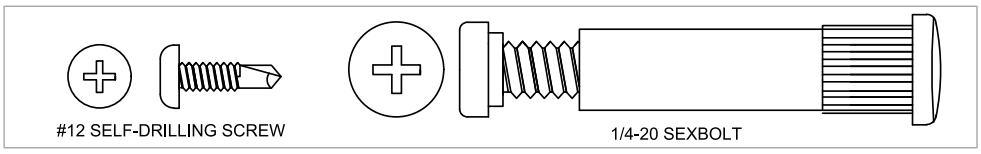


Fig. 5 — Install Leaf Cover on Door Leaf

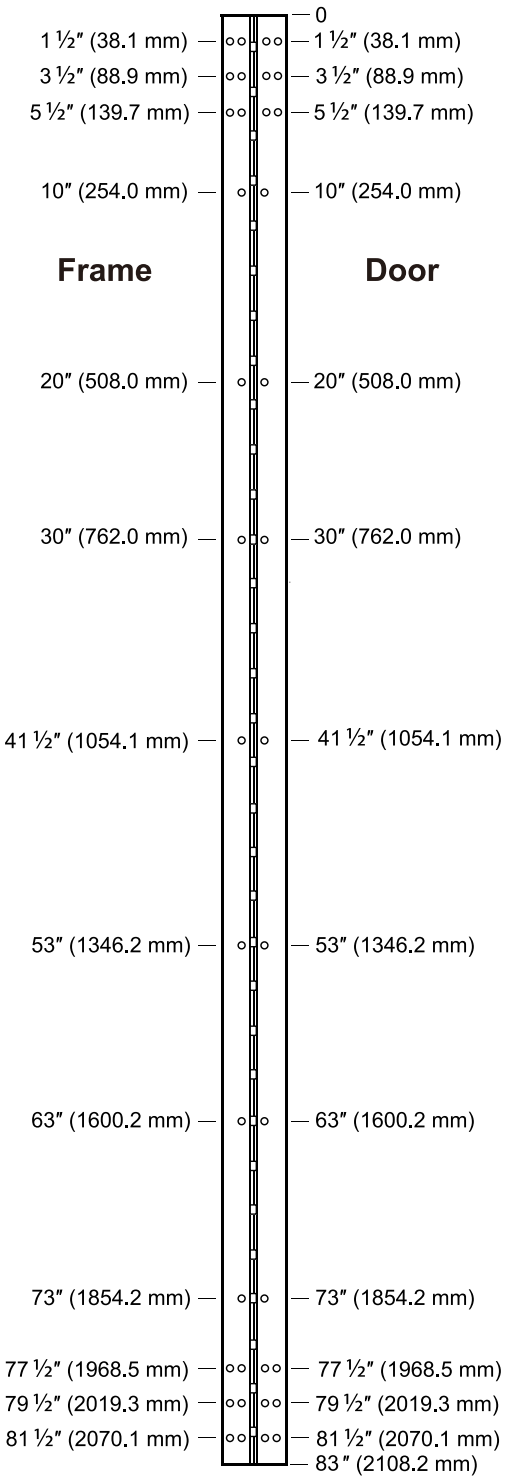


DHHD224 TEMPLATES & CROSS REFERENCES

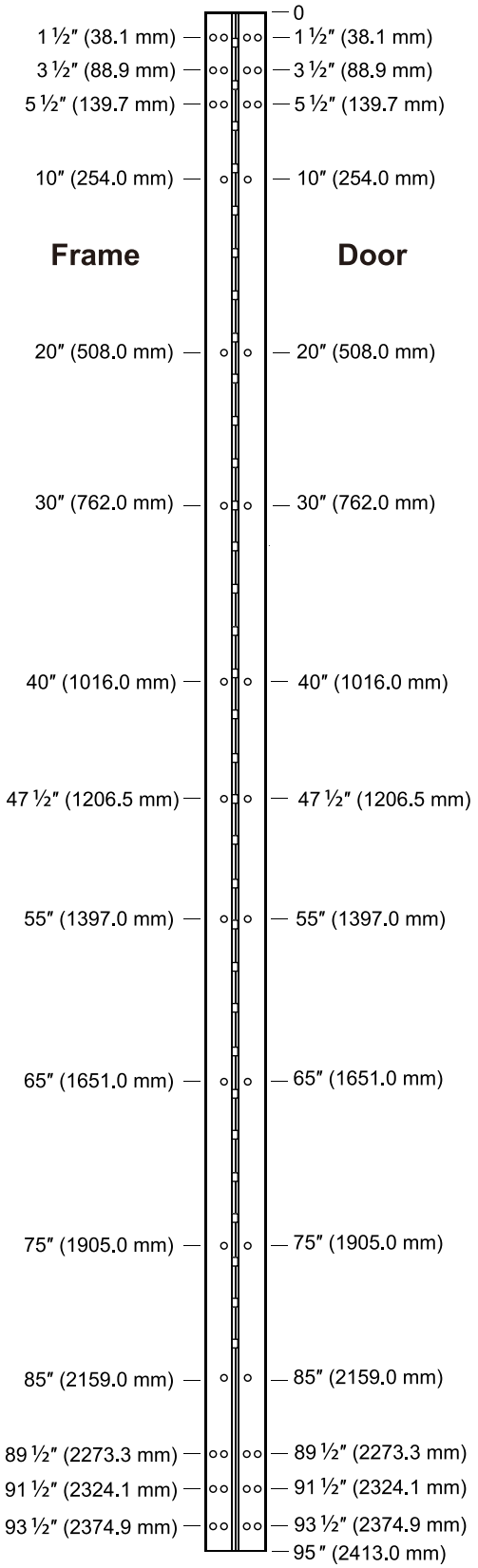
DHHD224 Templates

(See Fig.1 - Fig.5) Frame/door leaf hole positions are the same.

83″ Template: 38 fasteners and 32 bearings



95″ Template: 26 fasteners and 36 bearings



Cross References

DH	ABH	IVES	MARKAR	MCKINNEY	NGP	PEMKO	PBB	ROTON	SELECT	STANLEY	ZERO
DHHD224	A240HD	224HD	FM2011	MCK25HD	HD2400	FMHD	CH31	780-224HD	SL24 HD600	662HD	914DB

Half-Surface Aluminum Continuous-Geared Hinges / Heavy-Duty

DHHD053 is an aluminum continuous-geared, half-surface hinge with a 3/32″ (2.4 mm) door inset. It fits standard frames without hinge prep and may be installed with or without reinforcements depending on door weight. Maintain a minimum clearance of 3/16″ (4.8 mm) between the door's hinge edge and the frame. Hinges are supplied with bearings.

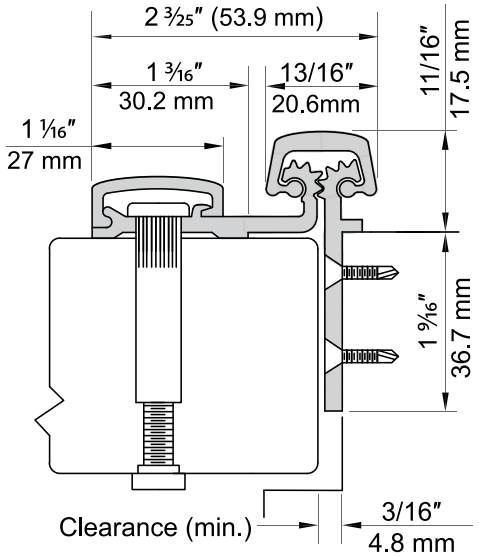


Fig. 1 — DHHD053

Hinge Length

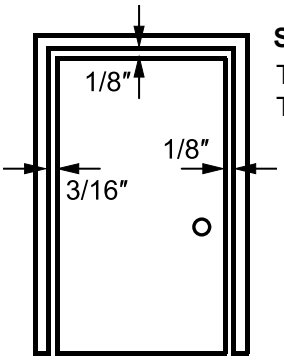
Direct Hardware (DH) hinges are s upplied approximately 1″ (25.4 mm) to 1 5⁄16″ (33.3 mm) shorter than nominal door height to avoid interference at thresholds or carpet.

Door Height	Hinge Length	Bearings
7′ - 0″	83″ (2108 mm)	32 PCS
8′ - 0″	95″ (2413 mm)	36 PCS
10′ - 0″	119″ (3022 mm)	46 PCS

If shortening is required, first confirm door handing and hinge orientation.

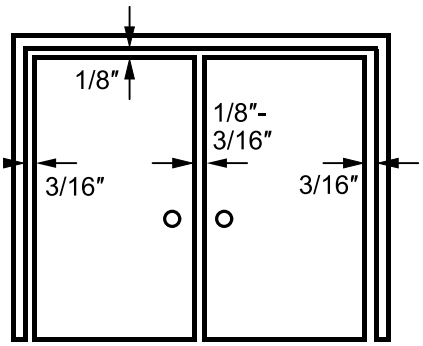
Mark and trim from the bottom only—do not cut the top.

Door Clearance Required



SINGLE DOOR

Typical hinge clearance: 3/16″ (4.8 mm)
Typical latch-side clearance: 1/8″ (3.2 mm)
Total: 5/16″ (7.9 mm)



DOUBLE DOORS

First hinge clearance (typical): 3/16″ (4.8 mm)
Clearance between doors (typical): 3/16″ (4.8 mm)
Second hinge clearance (typical): 3/16″ (4.8 mm)
Total: 9/16″ (14.3 mm)

Cutting the Hinge to Fit

- Keep the hinge closed and remove door-leaf caps if necessary.
- Confirm handing (if applicable).
- Cut one end only. After cutting, mount the hinge so the template hole pattern aligns at the top.
- Use a metal-cutting saw, starting at the gear cap.
- Maintain 3/16″ (4.8 mm) minimum clearance between the hinge edge and the frame.
- To prevent grout from interfering with fasteners, use mortar guards (styrofoam or wood) in frames.
- New site-hung wood doors: if trimming, scribe and cut from the latch edge to maintain hinge-stile thickness for secure fastening.
- Remodeling existing wood or laminate doors: if trimming, scribe and cut from the hinge edge, then plane smooth.

What to Order

Specify: • Model (DHHD053) • Length • Finish (AL/BK/DU) • Fasteners (metal/wood) • Quantity

Quick-Specs

Door Inset	3/32″ (2.4 mm)
Handing	LH/RH (or Non-handed)
Clearances	3/16″ (4.8 mm) min at hinge edge

Backset	Standard Frame
Frame Prep	Standard Frame
Lengths	83″ / 95″ / 119″ (bearings: 32 / 36 / 46)

DHHD053 INSTALLATION INSTRUCTIONS

Attach Hinge to Frame (See Fig. 2)

1. Position the hinge in the door-open orientation.
2. Using a shim, set the hinge so its top is 1/16″ (1.6 mm) below the header rabbet (max. 1/8″ / 3.2 mm). Seat the frame-leaf alignment flange firmly against the frame face.
3. Mark (or center-punch) one hole at the top and one at the bottom of the frame leaf, then drill at the marks:
   - Metal frames: Drill & tap all mounting holes for #12-24 threads before installing screws.
   - Wood frames: Use optional #12 × 1-1/2 flat-head wood screws.
4. Fasten the frame leaf to the frame:
   - Metal frames: Install the supplied #12 self-drilling screws.
   - Wood frames: Install the optional #12 wood screws.

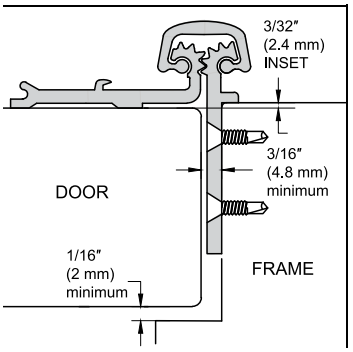


Fig. 2 — Attach Hinge to Frame

Door Preparation (See Fig. 3)

1. Shim the door in the opening to achieve uniform clearances.
2. Temporarily fasten the door leaf to the door using the locator holes. Remove shims and verify clearances; adjust as needed so the door is aligned when shims are removed.
3. Mark the locations for the top and bottom barrel nuts on the door using a 3/8″ (9.53 mm) striker pin.
4. Remove the door and place it on a flat surface. Drill at the marks with a 3/8″ (9.53 mm) bit, keeping holes square through both faces.
   - Metal doors: Use the optional #12 self-drilling screws.
   - Wood doors: Pre-drill with a #18 (0.170″ / 4.5 mm) bit for the optional #12 wood screws.

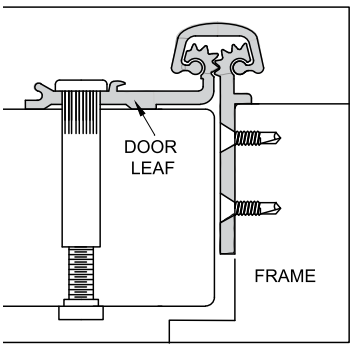


Fig. 3 — Door Preparation

Attach Door to Hinge (See Fig. 4)

1. Fasten the door to the door leaf as shown; adjust the frame for smooth operation and proper alignment.
2. Complete fastening to the hinge; re-check alignment and remove all shims/wedges.
3. Secure the door to the door leaf with barrel nuts and 1/4-20 sexbolts.

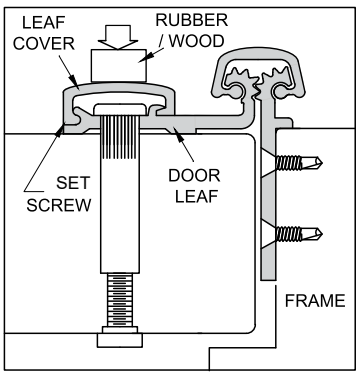


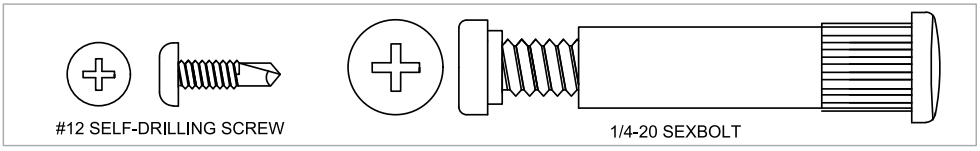
Fig. 4 — Attach Door to Hinge

Install Leaf Cover on Door Leaf (See Fig. 5)

1. With the supplied 5/64″ (1.98 mm) hex key, locate and loosen the molding's retaining set-screw.
2. Align the long leg of the molding along the outer edge of the door leaf for full-length contact with the hinge.
3. Starting at the top, press—or gently tap—the short leg into place using a rubber mallet or a hammer with a wood block.
4. Re-tighten the retaining set-screw securely.

Material	Pilot Holes	Screw Type	Notes
16-ga metal frame/door	Not required	#12 self-drilling (supplied)	Drive 1,900–2,500 RPM
>16-ga metal	Drill & tap #12-24	#12-24 machine screw	Tap all mounting holes
Wood frame/ door	Drill 5/32″ (4 mm)	#12 wood screw (optional)	Included with leaf-cover (LL) models

Wood row: "Use hand-tight torque; do not over-drive.



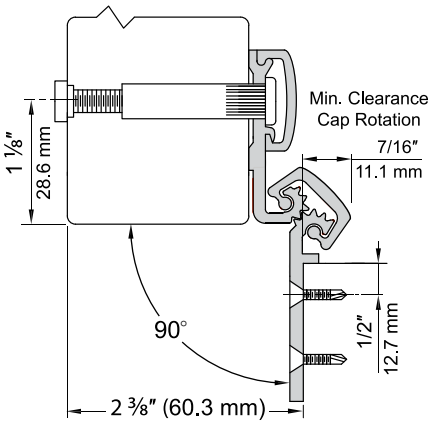
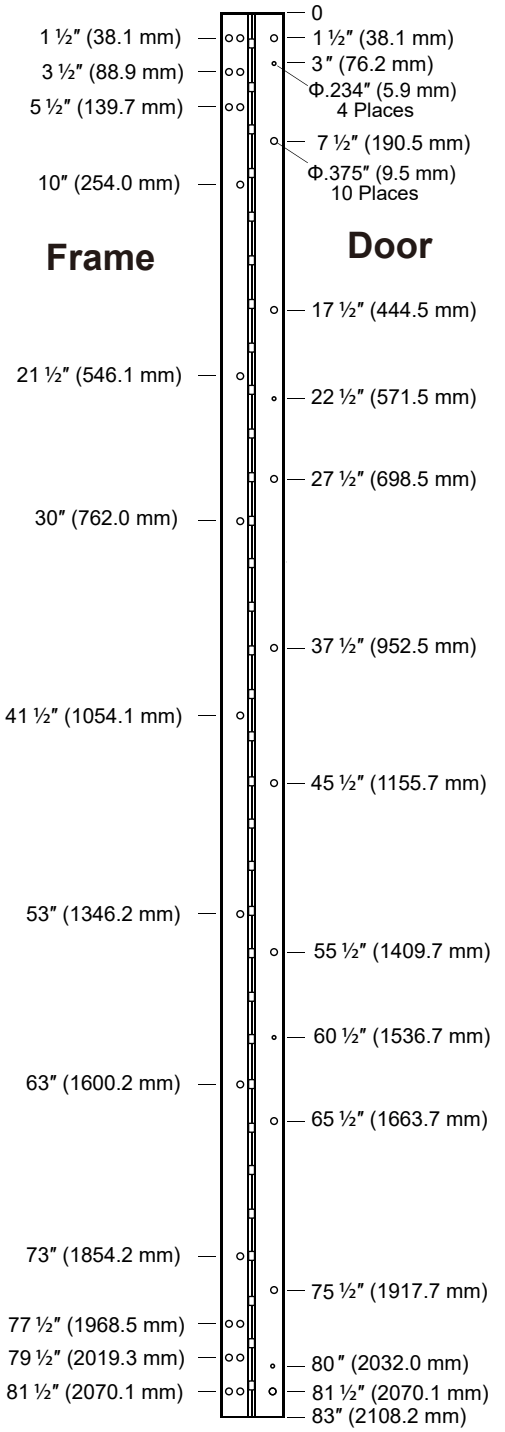


Fig. 5 — Install Leaf Cover on Door Leaf

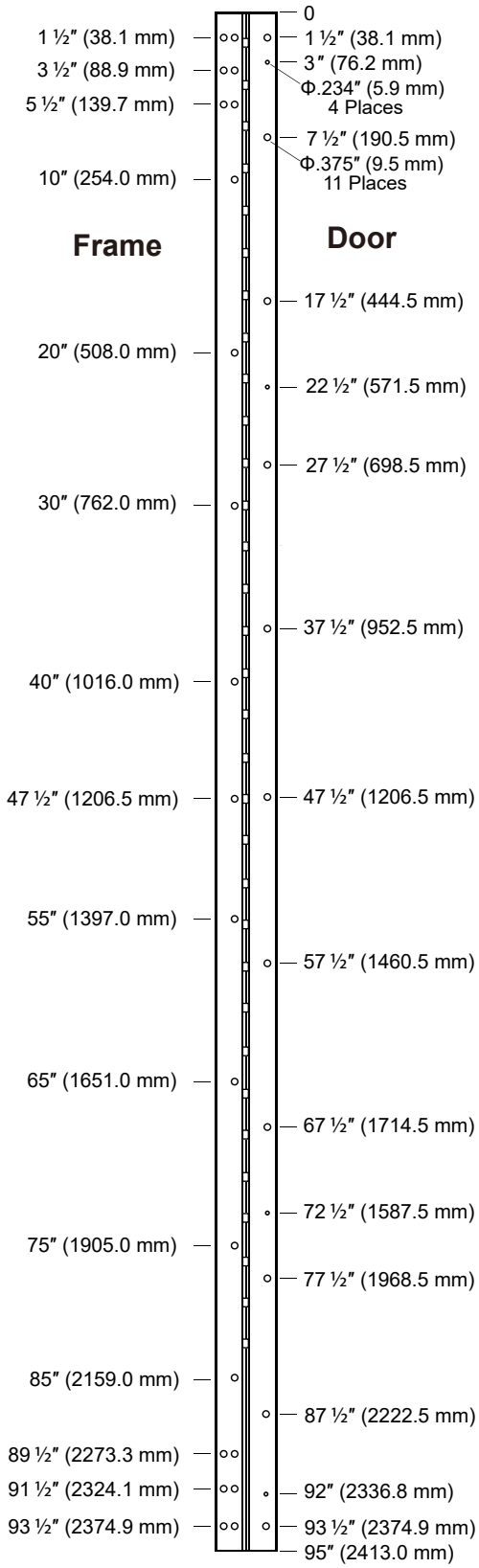
DHHD053 TEMPLATES & CROSS REFERENCES

DHHD053 Templates / Leaf Hole Positions

83" Template: 29 fasteners and 32 bearings



95" Template: 33 fasteners and 36 bearings



Cross References

DH	ABH	IVES	MARKAR	MCKINNEY	NGP	PEMKO	PBB	ROTON	SELECT	STANLEY	ZERO
DHHD053	A530HD	053XY			HD5300	FMHD	CH31	780-053HD	SL53 HD600	679HD	925DB

Full-Surface Aluminum Continuous-Geared Hinges / Heavy-Duty

DHHD210 / Full-Surface Hinge is an aluminum, continuous geared, full-surface hinge designed for a 1/32″ (0.8 mm) door inset. It installs on standard frames without hinge preparations and may be used with or without reinforcements, depending on door weight. The frame face must provide a flat bearing surface at least 1 ⅝″ (41.3 mm) wide. A clearance of 1/16″ (1.6 mm) is required between the door's hinge edge and the frame rabbet. Hinges are supplied with bearings.

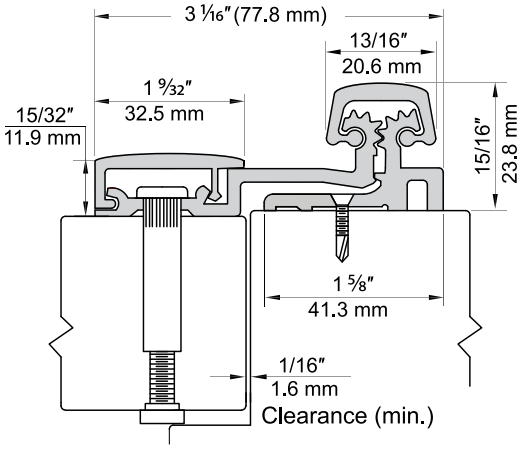


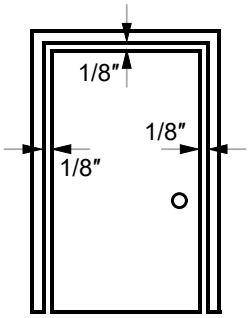
Fig. 1 — DHHD210

Hinge Length

Direct Hardware (DH) hinges are supplied approximately 1″ (25.4 mm) to 1 5⁄16″ (33.3 mm) shorter than nominal door height to avoid interference at thresholds or carpet. If shortening is required, first confirm door handing and hinge orientation. Mark and trim from the bottom only—do not cut the top.

Door Height	Hinge Length	Bearings
7′ - 0″	83″ (2108 mm)	32 PCS
8′ - 0″	95″ (2413 mm)	36 PCS
10′ - 0″	119″ (3022 mm)	46 PCS

Door Clearance Required

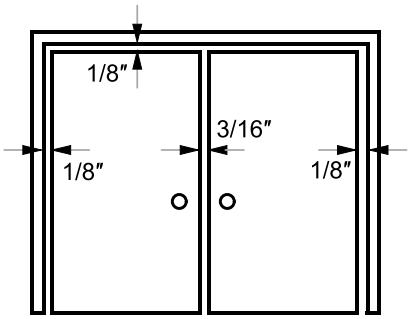


SINGLE DOOR

Typical hinge-side clearance: 1/8″ (3.2 mm)
Typical latch-side clearance: 1/8″ (3.2 mm)
Total: 1/4″ (6.4 mm)

DOUBLE DOORS

First hinge-side clearance (typical): 1/8″ (3.2 mm)
Clearance between doors (typical): 3/16″ (4.8 mm)
Second hinge-side clearance (typical): 1/8″ (3.2 mm)
Total: 7/16″ (11.1 mm)



Cutting the Hinge to Fit

- Keep the hinge closed and remove door-leaf caps if necessary.
- Confirm handing (if applicable).
- Cut one end only. After cutting, mount the hinge so the template hole pattern aligns at the top.
- Use a metal-cutting saw, starting at the gear cap.
- Maintain 1/16″ (1.6 mm) minimum clearance between the hinge edge and the frame.
- To prevent grout from interfering with fasteners, use mortar guards (styrofoam or wood) in frames.
- New site-hung wood doors: if trimming, scribe and cut from the latch edge to maintain hinge-stile thickness for secure fastening.
- Remodeling existing wood or laminate doors: if trimming, scribe and cut from the hinge edge, then plane smooth.

Note: If the cut length coincides with a set-screw bearing, remove that bearing and replace it with a plain bearing positioned above the cut.

What to Order

Specify: • Model (DHHD210) • Length • Finish (AL/BK/DU) • Fasteners (metal/wood) • Quantity

Quick-Specs

Door Inset	1/32″ (0.8 mm)
Handing	LH/RH (or Non-handed)
Clearances	1/16″ (1.6 mm) min at hinge edge

Backset	Standard Frame
Frame Prep	Standard Frame
Lengths	83″ / 95″ / 119″ (bearings: 32 / 36 / 46)

DHHD210 INSTALLATION INSTRUCTIONS

Attach Hinge to Frame (See Fig. 2)

1. Ensure the frame face provides a flat bearing surface at least 1 ⅝″ (41.3 mm) wide. Mark a reference line on the frame face 1 ¾″ (44.5 mm) from the gap centerline between the door and jamb. (For a standard 1/8″ hinge-side gap, this reference is 1 ¾″ from the gap centerline.)
2. Align the outer edge of the frame-side leaf to the reference line. Set the top of the hinge 1/16″ (1.6 mm) below the header rabbet, max. 1/8″ (3.2 mm).
3. Swing the door-side leaf away to expose the fastener locations; mark and center-punch each hole.
4. Fastening by substrate:
   a) Metal frames, 16 ga: no pilot holes required with the provided #12 self-drilling screws.
   b) Metal frames, thicker than 16 ga: drill and tap all mounting holes for #12-24 threads before installing screws.
   c) Wood frames: pre-drill 5/32″ (4.0 mm) pilot holes for optional #12 wood screws.
5. Secure the hinge to the frame face. For metal frames, install the provided #12 self-drilling screws at a recommended drill/driver speed of 1,900–2,500 RPM. For wood frames, use the optional #12 wood screws.

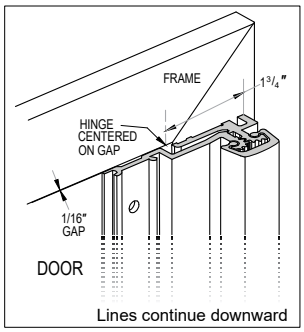


Fig. 2 — Attach Hinge to Frame

Door Preparation (See Fig. 3)

1. With the hinge leaf swung aside, position the door in the frame. Use shims or wedges to achieve the required clearances on all sides.
2. Provide an additional 5/32″ (4.0 mm) of clearance at the top of the latch edge to accommodate possible settling or frame twist after shims are removed and the door's weight is transferred to the frame.
3. Secure the door in place, then rotate the hinge leaf into contact with the door face.
4. Choose one of the following mounting methods for the door-side leaf:
   a) Standard sex-bolt mounting: mark and center-punch locations for 3/8″ (9.53 mm) through-holes; swing the leaf away; drill through the door at each mark using a 3/8″ (9.53 mm) bit.
   b) Mounting without sex bolts: mark and center-punch locations for 7/32″ (5.56 mm) pilot holes. For metal doors, use optional #12 self-drilling screws; for wood doors, pre-drill 5/32″ (4.0 mm) pilot holes and use optional #12 wood screws.

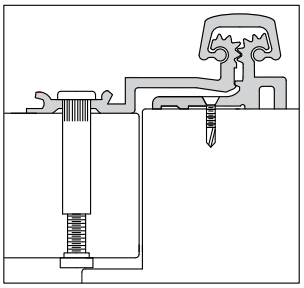


Fig. 3 — Door Preparation

Attach Door to Hinge (See Fig. 4)

1. Fasten the hinge to the door as shown. For added security on the push face, sex bolts may be installed in reverse; note that once the molding is installed, reversed sex bolts are no longer accessible for service or removal.
2. Remove all shims and wedges. Gently swing the door to verify smooth operation, correct alignment, and adequate clearances.

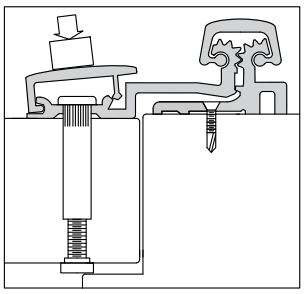


Fig. 4 — Attach Door to Hinge

Install Leaf Cover on Door Leaf (See Fig. 5)

1. Using the supplied 5/64″ (1.98 mm) hex key, locate and loosen the retaining setscrew on the molding edge. Position the long leg of the molding beneath the outer edge of the door leaf, aligning it along the full length of the hinge.
2. Starting at the top and working downward, press or lightly tap the short leg of the molding into place using a rubber mallet—or a hammer with a wood block as a protector.
3. Tighten the retaining setscrew securely.

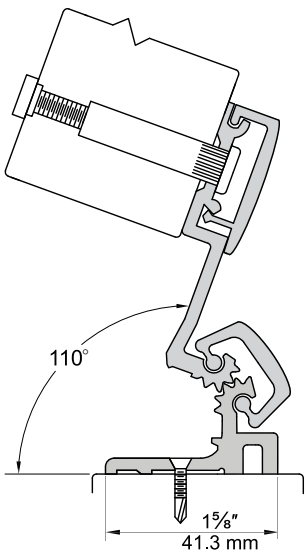
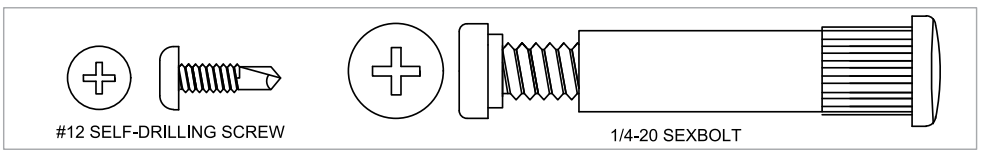


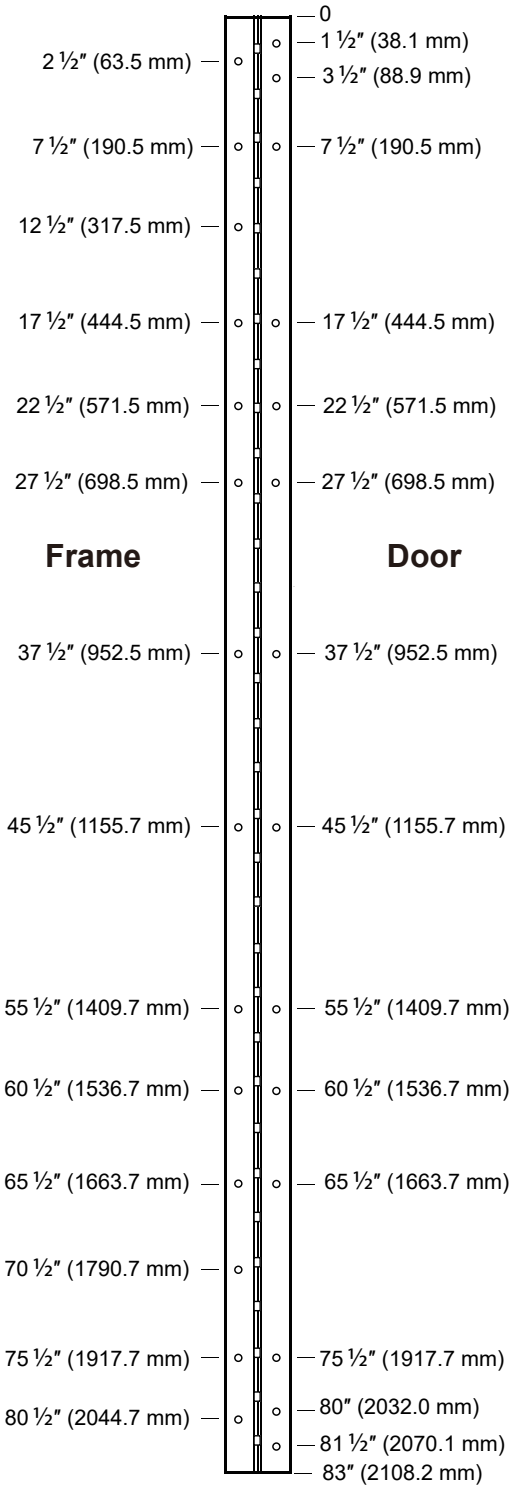
Fig. 5 — Install Leaf Cover on Door Leaf



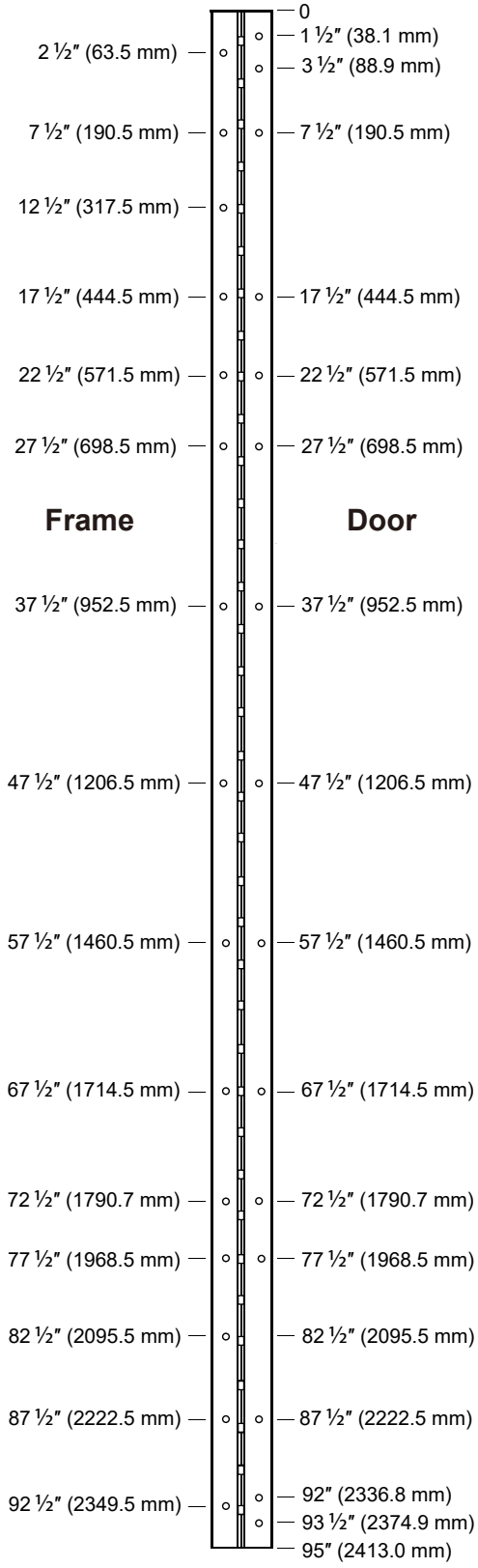
DHHD210 TEMPLATES & CROSS REFERENCES

DHHD210 Templates / Leaf Hole Positions

83" Template: 24 fasteners and 32 bearings



95" Template: 26 fasteners and 36 bearings



Cross References

DH	ABH	IVES	MARKAR	MCKINNEY	NGP	PEMKO	PBB	ROTON	SELECT	STANLEY	ZERO
DHHD210	A210HD	210XY	FM2009	MCK22HD	HD2100	FMHD	CG33C	780-210HD	SL21 HD600	665HD	930DB

Full-Surface Aluminum Continuous-Geared Hinges / Heavy-Duty

DHHD057 / Full-Surface Hinge is an aluminum, continuous-geared, full-surface hinge designed for installation on standard frames without hinge preparations. It may be installed with or without reinforcements, depending on door weight. The frame face must provide a flat surface at least 1 3⁄16″ (30.2 mm) wide. A clearance of 1/16″ (1.6 mm) is required between the door's hinge edge and the frame rabbet.
Hinges are supplied with bearings.

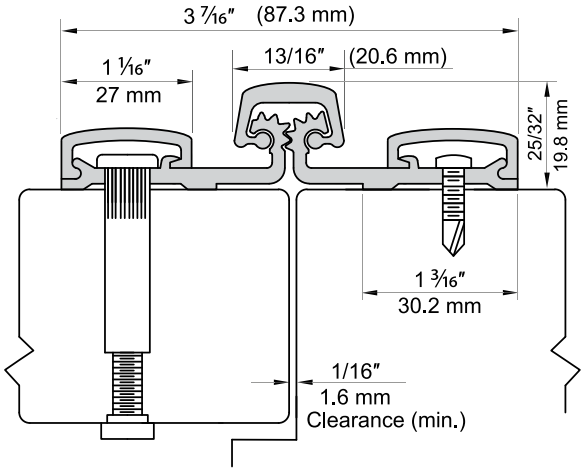


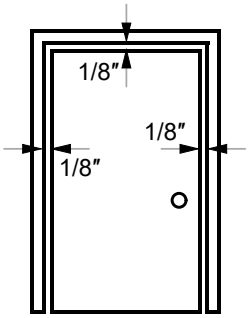
Fig. 1 — DHHD057

Hinge Length

Direct Hardware (DH) hinges are supplied approximately 1″ (25.4 mm) to 1 5⁄16″ (33.3 mm) shorter than nominal door height to avoid interference at thresholds or carpet. If shortening is required, first confirm door handing and hinge orientation. Mark and trim from the bottom only—do not cut the top.

Door Height	Hinge Length	Bearings
7′ - 0″	83″ (2108 mm)	32 PCS
8′ - 0″	95″ (2413 mm)	36 PCS
10′ - 0″	119″ (3022 mm)	46 PCS

Door Clearance Required

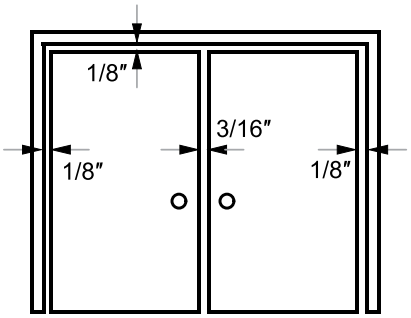


SINGLE DOOR

Typical hinge-side clearance: 1/8″ (3.2 mm)
Typical latch-side clearance: 1/8″ (3.2 mm)
Total: 1/4″ (6.4 mm)

DOUBLE DOORS

First hinge-side clearance (typical): 1/8″ (3.2 mm)
Clearance between doors (typical): 3/16″ (4.8 mm)
Second hinge-side clearance (typical): 1/8″ (3.2 mm)
Total: 7/16″ (11.1 mm)



Cutting the Hinge to Fit

- Keep the hinge closed and remove door-leaf caps if necessary.
- Confirm handing (if applicable).
- Cut one end only. After cutting, mount the hinge so the template hole pattern aligns at the top.
- Use a metal-cutting saw, starting at the gear cap.
- Maintain 1/16″ (1.6 mm) minimum clearance between the hinge edge and the frame.
- To prevent grout from interfering with fasteners, use mortar guards (styrofoam or wood) in frames.
- New site-hung wood doors: if trimming, scribe and cut from the latch edge to maintain hinge-stile thickness for secure fastening.
- Remodeling existing wood or laminate doors: if trimming, scribe and cut from the hinge edge, then plane smooth.

Note: If the cut length coincides with a set-screw bearing, remove that bearing and replace it with a plain bearing positioned above the cut.

What to Order

Specify: • Model (DHHD057) • Length • Finish (AL/BK/DU) • Fasteners (metal/wood) • Quantity

Quick-Specs

Door Inset	1/16″ (1.6 mm)
Handing	LH / RH (or Non-handed)
Clearances	1/16″ (1.6 mm) min at hinge edge

Backset	Standard Frame
Frame Prep	Standard Frame
Lengths	83″ / 95″ / 119″ (bearings: 32 / 36 / 46)

Attach Hinge to Frame (See Fig. 2)

1. Position the hinge in the door-open position.
2. Using a shim, set the top of the hinge 1/16″ (1.6 mm) below the header rabbet (max. 1/8″ / 3.2 mm). Seat the frame-leaf alignment flange snugly against the frame face.
3. Mark (or center-punch) one hole at the top and one at the bottom of the frame leaf. Then prepare holes per substrate:
   a) Metal frames ≤16 ga: no pilot holes required; use the provided #12 self-drilling screws (recommended 1,900–2,500 RPM).
   b) Metal frames >16 ga: drill and tap all mounting holes for #12-24 threads before installing screws.
   c) Wood frames: pre-drill 5/32″ (4.0 mm) pilot holes for optional #12 flat-head wood screws.
4. Secure the frame leaf to the frame using the appropriate fasteners listed above.

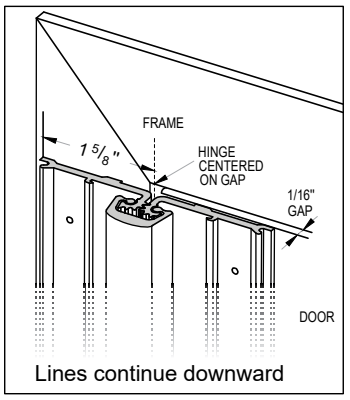


Fig. 2 — Attach Hinge to Frame

Door Preparation

1. Shim the door in the opening to achieve the required clearances.
2. Temporarily attach the door leaf to the door by inserting screws in the locator holes. Remove the shims and verify clearances. Note: Make any adjustments needed to realign the door after the shims are removed.
3. Mark the locations for the top and bottom barrel nuts on the door using a 3/8″ (9.53 mm) striker pin.
4. Remove the door and place it on a stable horizontal surface. Drill through at each mark with a 3/8″ (9.53 mm) bit.
   a) Metal doors: use the optional #12 self-drilling screws where specified.
   b) Wood doors: pre-drill 5/32″ (4.0 mm) pilot holes and use optional #12 wood screws.
   Note: Drill squarely through both faces of the door.

Attach Door to Hinge (See Fig. 3)

1. Fasten the door to the door leaf as illustrated. Adjust the frame/hinge as needed to ensure smooth operation and proper alignment. Remove all shims and wedges.
2. Secure the door to the door leaf using barrel nuts and 1/4-20 sex bolts.

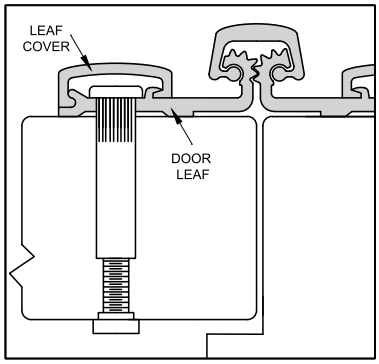


Fig. 3 — Attach Door to Hinge

Install Leaf Cover on Door Leaf (See Fig. 4)

1. Using the supplied 5/64″ (1.98 mm) hex key, locate and loosen the retaining set-screw on the molding edge.
2. Position the long leg of the molding beneath the outer edge of the door leaf, aligning it along the full length of the hinge. Starting at the top, press—or gently tap—the short leg into place using a rubber mallet (or a hammer with a wood block as a protector).
3. Tighten the retaining setscrew securely.

   Note: If the cut length ever coincides with a set-screw bearing, remove that bearing and replace it with a plain bearing positioned above the cut.

Material	Pilot Holes	Screw Type	Notes
16-ga metal frame/door	Not required	#12 self-drilling (supplied)	Drive 1,900–2,500 RPM
>16-ga metal	Drill & tap #12-24	#12-24 machine screw	Tap all mounting holes
Wood frame/ door	Drill 5/32″ (4 mm)	#12 wood screw (optional)	Included with leaf-cover (LL) models

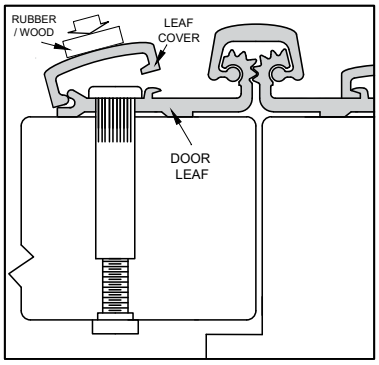
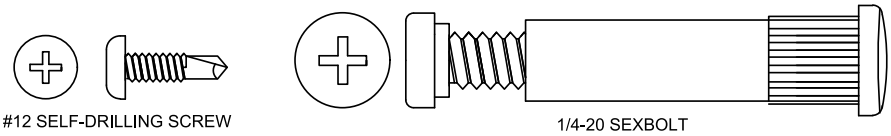


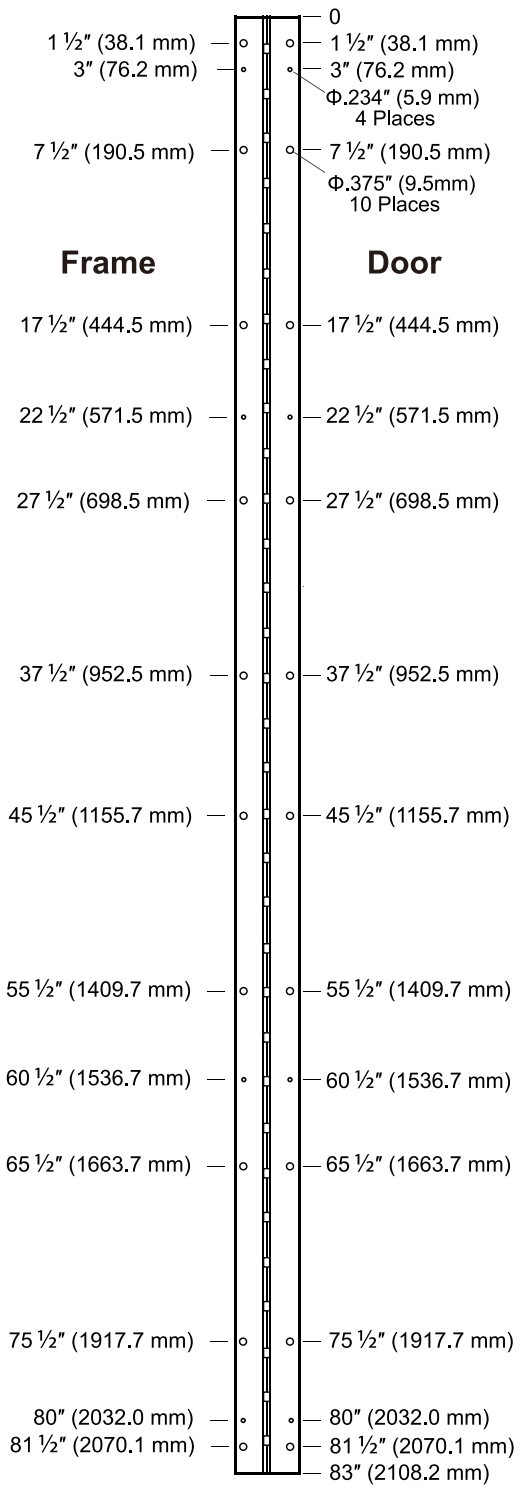
Fig. 4 — Install Leaf Cover on Door Leaf



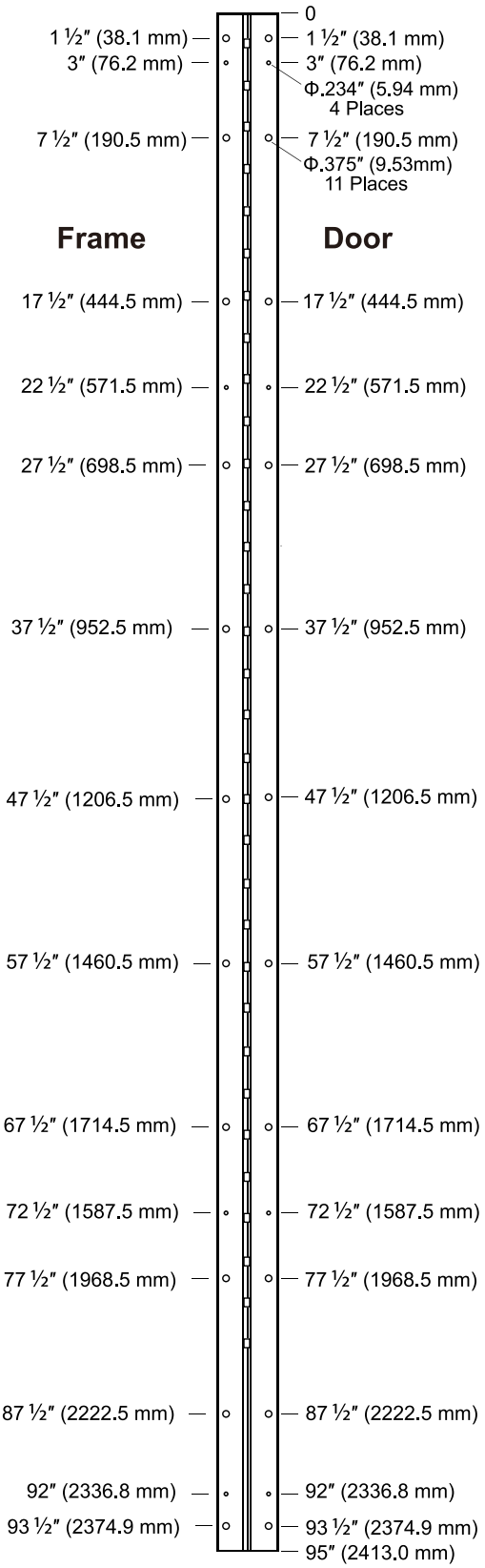
DHHD057 TEMPLATES & CROSS REFERENCES

DHHD057 Templates / Leaf Hole Positions

83" Template: 29 fasteners and 32 bearings



95" Template: 33 fasteners and 36 bearings



Cross References

DH	ABH	IVES	MARKAR	MCKINNEY	NGP	PEMKO	PBB	ROTON	SELECT	STANLEY	ZERO
DHHD057	A571HD		FM2002					780-057HD			

Full-Surface Aluminum Continuous-Geared Hinges / Heavy-Duty

DHHD157 / Full-Surface Hinge is an aluminum, continuous-geared, full-surface hinge designed for a 1/16″ (1.6 mm) door inset. It installs on standard frames without hinge preparations and may be used with or without reinforcements depending on door weight. The frame face must provide a flat bearing surface at least 7/8″ (22.2 mm) wide. Maintain a minimum clearance of 1/16″ (1.6 mm) between the door's hinge edge and the frame rabbet. Hinges are supplied with bearings.

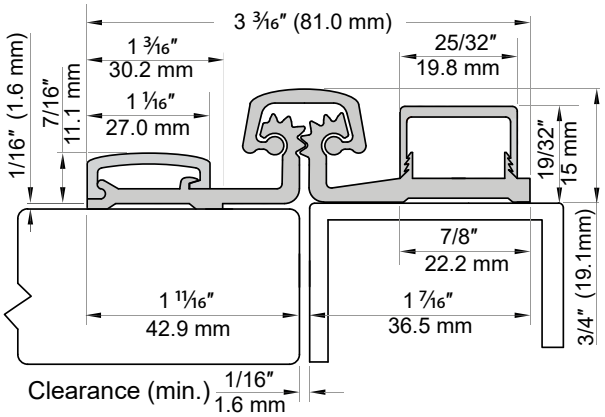


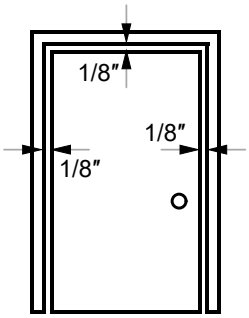
Fig. 1 — DHHD157

Hinge Length

Door Height	Hinge Length	Bearings
7′ - 0″	83″ (2108 mm)	32 PCS
8′ - 0″	95″ (2413 mm)	36 PCS
10′ - 0″	119″ (3022 mm)	46 PCS

Direct Hardware (DH) hinges are supplied approximately 1″ (25.4 mm) to 1 5⁄16″ (33.3 mm) shorter than nominal door height to avoid interference at thresholds or carpet. If shortening is required, first confirm door handing and hinge orientation. Mark and trim from the bottom only—do not cut the top.

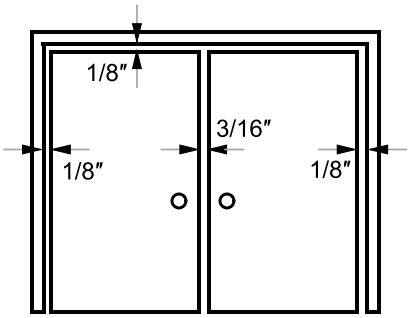
Door Clearance Required



SINGLE DOOR

Typical hinge-side clearance: 1/8″ (3.2 mm)
Typical latch-side clearance: 1/8″ (3.2 mm)
Total: 1/4″ (6.4 mm)

DOUBLE DOORS



First hinge-side clearance (typical): 1/8″ (3.2 mm)
Clearance between doors (typical): 3/16″ (4.8 mm)
Second hinge-side clearance (typical): 1/8″ (3.2 mm)
Total: 7/16″ (11.1 mm)

Cutting the Hinge to Fit

- Keep the hinge closed and remove door-leaf caps if necessary.
- Confirm handing (if applicable).
- Cut one end only. After cutting, mount the hinge so the template hole pattern aligns at the top.
- Use a metal-cutting saw, starting at the gear cap.
- Maintain 1/16″ (1.6 mm) minimum clearance between the hinge edge and the frame.
- To prevent grout from interfering with fasteners, use mortar guards (styrofoam or wood) in frames.
- New site-hung wood doors: if trimming, scribe and cut from the latch edge to maintain hinge-stile thickness for secure fastening.
- Remodeling existing wood or laminate doors: if trimming, scribe and cut from the hinge edge, then plane smooth.

Note: If the cut length coincides with a set-screw bearing, remove that bearing and replace it with a plain bearing positioned above the cut.

What to Order

Specify: • Model (DHHD157) • Length • Finish (AL/BK/DU) • Fasteners (metal/wood) • Quantity

Quick-Specs

Door Inset	1/16″ (1.6 mm)
Handing	LH / RH (or Non-handed)
Clearances	1/16″ (1.6 mm) min at hinge edge

Backset	Standard Frame
Frame Prep	Standard Frame
Lengths	83″ / 95″ / 119″ (bearings: 32 / 36 / 46)

DHHD157 INSTALLATION INSTRUCTIONS

Attach Hinge to Frame (See Fig. 2)

1. Ensure the frame face provides a flat surface at least 7/8″ (22.2 mm) wide to support the hinge. If the frame face is wider than 7/8″, mark a reference line on the frame face 1″ (25.4 mm) to 1 5⁄16″ (33.3 mm) from the gap centerline between the door and jamb. For a typical 1/8″ hinge-side gap, this reference line is 1 7⁄16″ (37.3 mm) from the gap centerline.
2. Place the outer edge of the frame leaf on the reference line. Set the top of the hinge 1/16″ (1.6 mm) below the header rabbet (max. 1/8″ / 3.2 mm). Note: Using a 1/16″ shim is recommended to allow for initial bearing settling.
3. Mark and center-punch all screw locations.
4. Fastener preparation by substrate: Metal frames ≤16 ga: pilot holes not required with supplied #12 self-drilling screws. Metal frames >16 ga: drill and tap #12-24 before installing screws. Wood frames: pre-drill 5/32″ (4.0 mm) pilot holes for optional #12 wood screws.

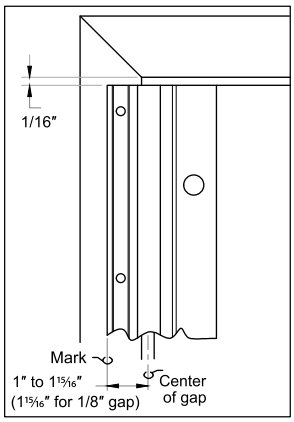


Fig. 2 — Attach Hinge to Frame

Door Preparation (See Fig. 3)

1. Shim the door in the opening to achieve the required clearances.
2. Temporarily attach the door leaf to the door using the locator holes. Remove shims and verify clearances. Note: Realign as needed after shims are removed.
3. Mark the locations for the top and bottom barrel nuts using a 3/8″ (9.5 mm) striker pin.
4. Remove the door and place it on a stable horizontal surface. Drill through at each mark with a 3/8″ (9.5 mm) bit.
   a) Metal doors: use optional #12 self-drilling screws where specified.
   b) Wood doors: pre-drill #18 (0.1695″, 4.3 mm) pilot holes and use optional #12 wood screws.
   Note: Ensure holes are drilled squarely through both faces of the door.

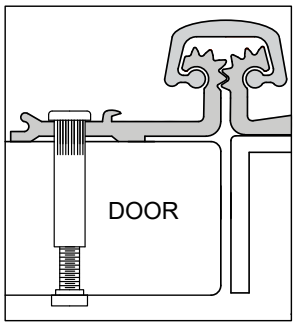


Fig. 3 — Door Preparation

Attach Door to Hinge (See Fig. 4)

1. Fasten the door to the door leaf as illustrated. Adjust hinge/frame as needed for smooth operation and proper alignment. Remove any remaining shims and wedges.
2. Secure the door to the door leaf with barrel nuts and 1/4-20 sex bolts.

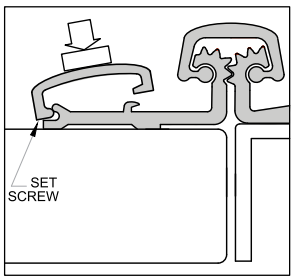


Fig. 4 — Attach Door to Hinge

Install Leaf Cover on Door Leaf (See Fig. 5)

1. Using the supplied 5/64″ (1.98 mm) hex key, locate and loosen the retaining setscrew on the molding edge.
2. Position the long leg of the molding beneath the outer edge of the door leaf and align along the full length of the hinge. Starting at the top, press—or gently tap—the short leg into place with a rubber mallet (or a hammer plus wood block).
3. Tighten the retaining setscrew securely.

Material	Pilot Holes	Screw Type	Notes
16-ga metal frame/door	Not required	#12 self-drilling (supplied)	Drive 1,900–2,500 RPM
>16-ga metal	Drill & tap #12-24	#12-24 machine screw	Tap all mounting holes
Wood frame/ door	Drill 5/32″ (4 mm)	#12 wood screw (optional)	Included with leaf-cover (LL) models

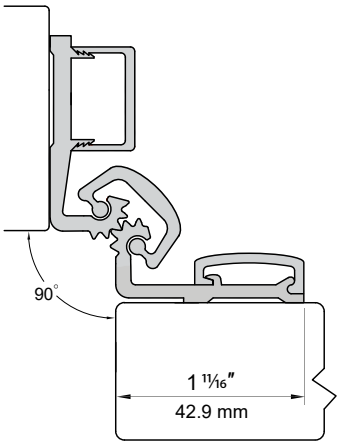
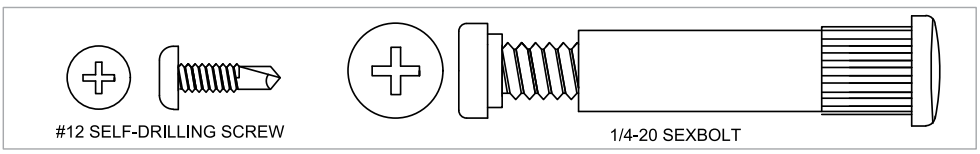


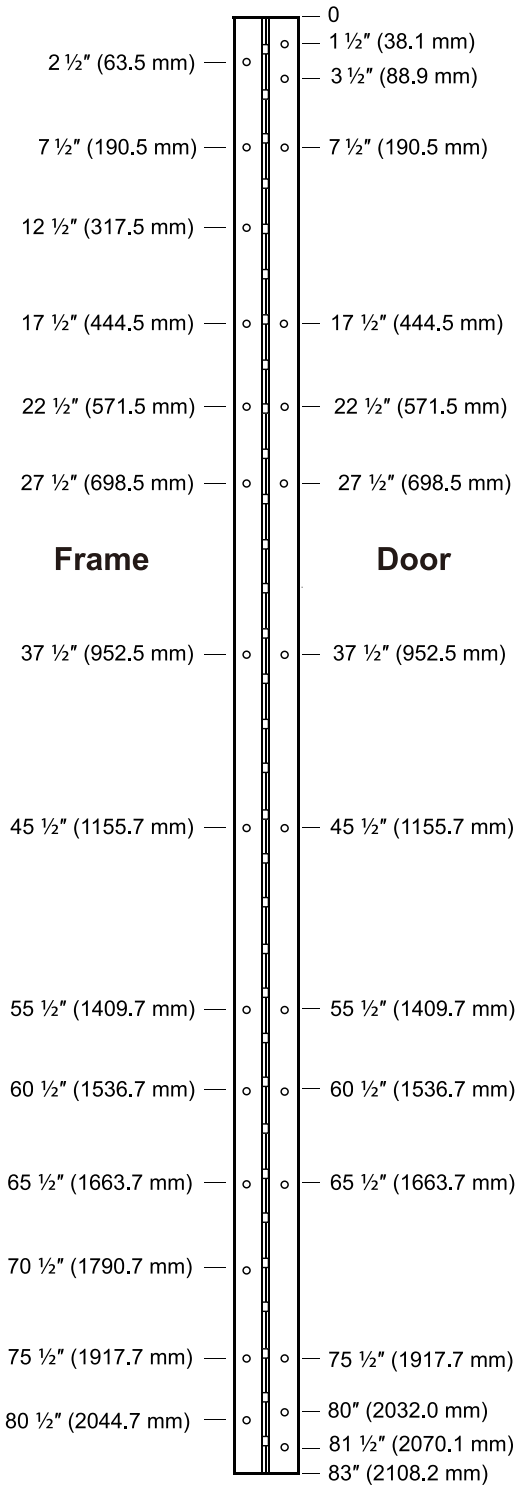
Fig. 5 — Install Leaf Cover on Door Leaf



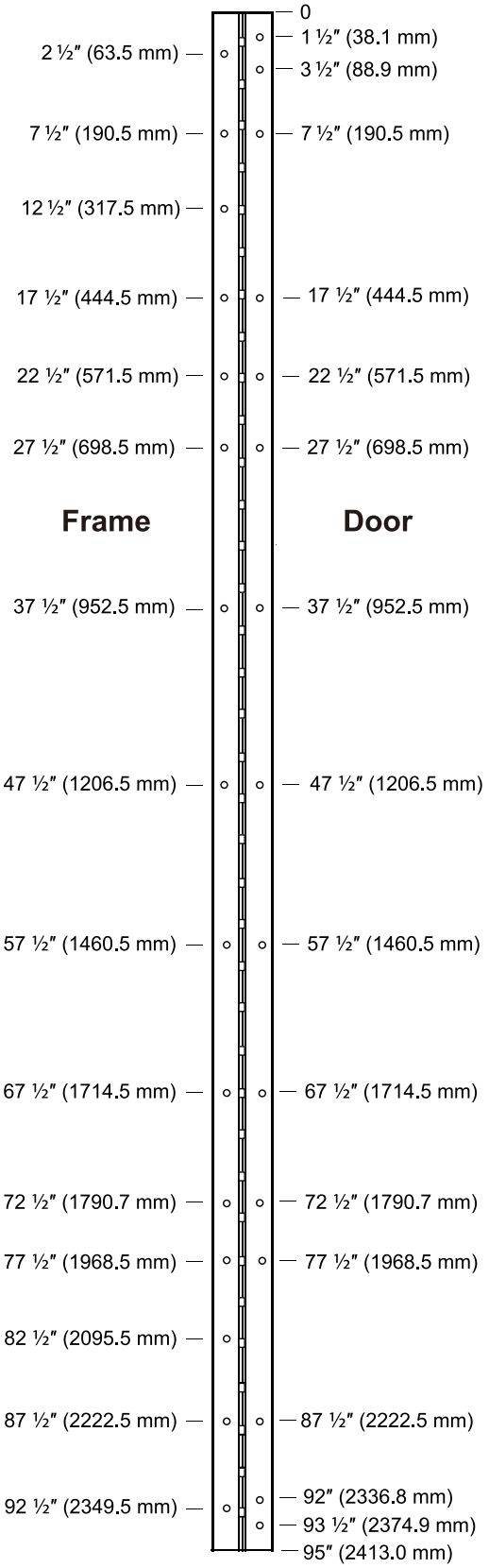
DHHD157 TEMPLATES & CROSS REFERENCES

DHHD157 Templates / Leaf Hole Positions

83" Template: 24 fasteners and 32 bearings



95" Template: 26 fasteners and 36 bearings



Cross References

DH	ABH	IVES	MARKAR	MCKINNEY	NGP	PEMKO	PBB	ROTON	SELECT	STANLEY	ZERO
DHHD157	A570HD	157XY		MCK58HD	HD5700	FSCPHD	CG33N	780-157HD	SL57 HD600	664HD	935DB